

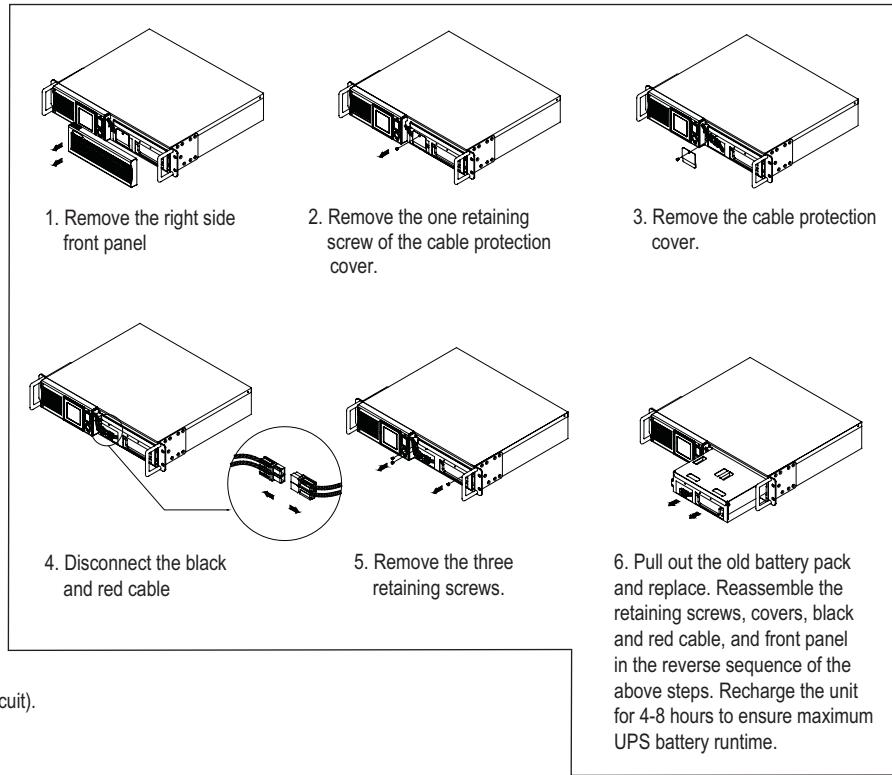
## REPLACING THE BATTERY

Read and follow these **IMPORTANT SAFETY INSTRUCTIONS** before servicing the battery. Service the battery under the supervision of someone knowledgeable of batteries and their precautions. Servicing the battery can only be performed by trained personnel.

**CAUTION!** When replacing batteries, replace with the same number of the following battery size: 12V/7AH for EP-400-UPS-8HTR-1000 and 12V/9AH for EP-400-UPS-8HTR-2200. There is risk of explosion if the battery is replaced by an incorrect type. Before replacing batteries, remove conductive jewelry such as chains, wrist watches, and rings. Do not dispose of batteries in a fire; the batteries may explode. Do not open or mutilate batteries as released material is harmful to the skin and eyes and may be toxic. To reduce the risk of fire, connect only to a circuit provided with 20 amperes (or 15 amps, depending on model) maximum branch circuit overcurrent protection in accordance with the National Electric Code, ANSI/NFPA 70.

Take the following precautions before replacing the battery:

1. Remove all watches, rings or other metal objects.
2. Only use tools with insulated handles and do not lay tools or metal parts on top of battery or any terminals.
3. Wear rubber gloves and boots and safety goggles.
4. Determine if the battery is inadvertently grounded, and remove source of ground if necessary. **CONTACT WITH A GROUNDED BATTERY CAN RESULT IN ELECTRICAL SHOCK!** The likelihood of such shock will be reduced if such grounds are removed during installation and maintenance (applicable to a UPS and a remote battery supply not having a grounded circuit).



### FCC Notice



This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**WARNING!** This equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) Reorient or relocate the receiving antenna. (2) Increase the separation between the equipment and receiver. (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. (4) Consult the dealer or an experienced radio/TV technician for help. Any special accessories needed for compliance must be specified in the instruction.

### SnapAV™ SURGE PROTECTOR EQUIPMENT WARRANTY POLICY (LIFETIME/ 2 YEAR)

#### SnapAV™ Surge Protector Lifetime Product Warranty

SnapAV warrants to the purchaser of any standard SnapAV™ surge protector that the surge protector shall be free of defects in design, material, or workmanship, and SnapAV will repair or replace any defective unit. For product replacement, see "NOTIFICATION" below.

#### Lifetime Replacement Policy

Valid only in the United States and Canada. If your SnapAV™ surge protector becomes damaged while protecting your connected equipment, you may request an equivalent replacement to the latest technology of that product category. Keep a copy of the original invoice to verify the product belongs to the original purchaser.

#### Warning Notice

**WARRANTY LIMITATION FOR INTERNET PURCHASERS:** SnapAV™ products purchased outside of SnapAV™ internet website do not carry a valid Connected Equipment Protection Policy unless purchased from an Authorized SnapAV Dealer.

**CAUTION:** Audio/Video, computer and/or telephone system installations can be very complex systems, which consist of many interconnected components. Due to the nature of electricity and surges, a single protector may not be able to completely protect complex installations. In those cases, a systemic approach using multiple protectors must be employed. Systemic protection requires professional design. AC power, satellite cables, CATV cables, or telephone/network lines entering the system that do not pass through this surge protector will render the SnapAV connected equipment protection policy null and void. For additional information on how to protect your system, please contact SnapAV before connecting your equipment to the surge protector.

#### SnapAV™ Surge Protector Connected Equipment Protection Policy

Valid only in the United States and Canada. It is the policy of SnapAV™ that it will, in its sole discretion, replace, pay to replace at fair market value, or pay to repair, up to the dollar amount specified below, equipment that is damaged by an AC power, cable, telephone, or lightning surge while connected to a properly installed SnapAV™ surge protector. SnapAV must determine that the surge protector shows signs of surge damage or is operating outside of design specifications, relative to its surge protection capability, and under all of the circumstances failed to protect your connected equipment.

#### THIS POLICY IS SUBJECT TO THE CONDITIONS BELOW:

**1. PROOF OF PURCHASE REQUIRED:** SnapAV's™ connected equipment policy extends to the original purchaser of the SnapAV™ product only and is non-transferable. Original purchase receipts must accompany any product return or claim for connected equipment damage.

**2. PROPER INSTALLATION:** SnapAV™ AC protectors must be directly plugged into a properly grounded 3-wire AC outlet. Extension cords, non-grounded two prong adapters, or other non-SnapAV™ surge products must not be used. Building wiring and other connections to protected equipment must conform to applicable codes (NEC or CEC). No other ground wires or ground connections may be used. All wires (including, e.g., AC power lines, telephone lines, signal/data lines, coaxial cable) leading into the protected equipment must first pass through a single SnapAV protector designed for the particular application. The protector and the equipment to be protected must be indoors in a dry location, and in the same building. SnapAV installation instructions and diagrams must be followed.

**3. NOTIFICATION:** You must notify SnapAV™ within fourteen days of any event precipitating a request for product replacement or payment for connected equipment damage. A return authorization (RA) number must first be obtained from the SnapAV™ Customer Relations Department at [www.snapav.com/support](http://www.snapav.com/support) before returning the protector to SnapAV™. At this time, you must notify SnapAV if you believe you have a claim for damaged connected equipment.

Once you obtain a RA number, please mark the number on the bottom of the unit and pack it in a shipping carton/box with enough packing material to protect it during transit. The RA number must also be clearly marked on the outside of the carton. Ship the unit to SnapAV™. Please note that you are responsible for any and all charges related to shipping the unit to SnapAV™.

If connected equipment damage was indicated on your RA request, SnapAV™ will request the make and model of all connected equipment, a connection diagram of your system, as well as other requests based on the extent of the request for product placement or payment for connected equipment damage. All requests by SnapAV™ are to be completed and returned within 30 days. Be sure to note its configuration before disconnecting your equipment.

**4. DETERMINATION OF FAILURE:** SnapAV will evaluate the protector for surge damage. The protector must show signs of surge damage or must be performing outside of design specifications relative to its surge protection capability. Opening the enclosure, tampering with, or modifying the unit in any way shall be grounds for an automatic denial of your request for payment. SnapAV™, after evaluating all information provided, shall, in its sole discretion, determine whether or not your request is eligible for payment. If the surge protector shows no signs of AC power or signal line surge damage and is working within design specifications, SnapAV™ will return the unit to you explaining the test results and notifying you of the rejection of your claim. SnapAV™ reserves the right to inspect the damaged connected equipment, parts, or circuit boards. SnapAV™ also reserves the right to inspect the customer's facility. Damaged equipment deemed uneconomical to repair must remain available for inspection by SnapAV until the claim is finalized.

**5. REQUEST PAYMENTS:** Once SnapAV™ has determined that you are entitled to compensation, SnapAV™ will, at its election, pay you the present fair market value of the damaged equipment, or pay for the cost of the repair, or send you replacement equipment, or pay the equivalence of replacement equipment.

**6. OTHER INSURANCE/WARRANTIES:** This coverage is secondary to any existing manufacturer's warranty, implied or expressed, or any insurance and/or service contract that may cover the loss.

**7. EXCLUSIONS:** THE SNAPAV™ SURGE PROTECTOR EQUIPMENT POLICY DOES NOT APPLY TO: Service charges, installation costs, reinstallation costs; setup cost; diagnostic charges; periodic checkups; routine maintenance; loss of use of the product; costs or expenses arising out of reprogramming or loss of programming and/or data; shipping charges or fees; service calls; loss or damage occasioned by fire, theft, flood, wind, accident, abuse or misuse, and products subject to manufacturer's recall or similar event.

**8. DISPUTE RESOLUTION:** Any controversy or claim arising out of or relating to SnapAV™ Surge Protector Equipment Policy, or the alleged breach thereof, shall be settled by arbitration administered by the American Arbitration Association under its Commercial Arbitration Rules. You may file for arbitration at any AAA location in the United States upon the payment of the applicable filing fee. The arbitration will be conducted before a single arbitrator, and will be limited solely to the dispute or controversy between you and SnapAV™. The arbitration shall be held in any mutually agreed upon location in person, by telephone, or online. Any decision rendered in such arbitration proceedings will be final and binding on each of the parties, and judgment may be entered thereon in a court of competent jurisdiction. The arbitrator shall not award either party special, exemplary, consequential, punitive, incidental or indirect damages, or attorney's fees. The parties will share the costs of arbitration (including the arbitrator's fees, if any) in the proportion that the final award bears to the amount of the initial claim.

**9. GENERAL:** If you have any questions regarding the product warranty or the connected equipment protection policy, please contact the SnapAV™ Technical Support at 866.838.5052. This warranty supersedes all previous warranties. This is the only warranty provided with the protector and any other implied or expressed warranties are nonexistent. This warranty may not be modified except in writing, signed by an officer of the SnapAV™ Corporation.

#### Product Warranty

Episode® Power Products have a Lifetime Limited Warranty. This warranty includes parts and labor repairs on all components found to be defective in material or workmanship under normal conditions of use. This warranty shall not apply to products which have been abused, modified or disassembled. Products to be repaired under this warranty must be returned to SnapAV or a designated service center with prior notification and an assigned return authorization number (RA).

#### Battery Warranty

2 years Limited- Batteries will be free of defects in design, material, or workmanship. SnapAV™ will replace any defective battery

episode



## EP-400-UPS-8HTR-1000 & 2200 Manual and Instructions

### Episode® Rack Mount 8-Outlet, 2U Uninterruptible Power Supply AVR with RJ45 - RG6

Read thoroughly and follow all instructions carefully before attempting to unpack, install, or operate this UPS unit.

#### BOX CONTENTS

(1) UPS Unit; (1) User's Manual for UPS; (2) Rack Mount Brackets; (2) Stands; (1) Telephone Cable; (1) Emergency Power Off Cable; (1) PowerPanel® Business Edition Software CD; (2) Serial Interface Cable (DB-9); (1) USB A+B type cable

#### IMPORTANT SAFETY INSTRUCTIONS

1. To prevent the risk of fire or electric shock, install in a temperature and humidity controlled indoor area free of conductive contaminants. (Please see specifications for acceptable temperature and humidity range).
2. To reduce the risk of electric shock, do not remove the cover except to service the battery. There are no user serviceable parts inside except for battery.
3. Hazardous live parts inside can be energized by the battery even when the AC input power is disconnected.
4. The UPS must be connected to an AC power outlet with fuse or circuit breaker protection. Do not plug into an outlet that is not grounded. If you need to de-energize this equipment, turn off and unplug the unit.
5. To avoid electric shock, turn off the unit and unplug it from the AC power source before servicing the battery or installing a computer component.
6. To reduce the risk of fire, connect only to a circuit provided with 20 amperes (or 15 amps, depending on model) maximum branch circuit over current protection, in accordance with the National Electric Code, ANSI/NFPA 70.

**DO NOT USE FOR MEDICAL OR LIFE SUPPORT EQUIPMENT!** Episode does not sell products for life support or medical applications. DO NOT use in any circumstance that would affect operation, safety of any life support equipment, any medical applications or patient care.

**DO NOT USE WITH OR NEAR AQUARIUMS!** Condensation from the aquarium can cause the unit to short out and may cause fire or electric shock.

**DO NOT USE WITH LARGE ELECTRICAL DEVICES!** The power demands of certain equipment (see Specifications for maximum load capacity) are too large for a UPS.

#### AUTOMATIC VOLTAGE REGULATOR (AVR)

The EP-400-UPS-8HTR-1000 and EP-400-UPS-8HTR-2200 can stabilize consistent utility power. The incoming utility power may be damaging to important data and hardware, but Automatic Voltage Regulation helps protect equipment from experiencing damaging voltage levels. An Automatic Voltage Regulator automatically regulates low or high voltages to keep equipment working at safe AC power levels without switching to battery. Your equipment can operate normally even during power problems, such as short brownouts and blackouts. The unit's sealed lead-acid batteries will provide power only if the incoming voltage drops below 80V or increases above 150V.

#### What is GEMTech?

##### Green Energy Management technology

This product is designed with active energy management circuitry for efficient, economical operation.

The patented energy-saving design in this product reduces energy consumption by up to 75% compared to conventional designs. Conventional UPS systems pass power through an AVR (automatic voltage regulator) transformer to provide normal output voltage to protected devices. This method is highly inefficient, resulting in excessive energy costs and unwanted heat. By contrast, the circuitry in our unit bypasses the transformer when utility power is normal. This bypass mode uses less energy and emits less heat. When utility power is detected to be abnormal, the unit automatically switches modes to operate like a conventional UPS with an AVR. Since utility power operates normally 88% of the time, the result of this technology is a significant reduction in power consumption when compared to conventional designs.

#### HARDWARE INSTALLATION GUIDE

1. Battery charge loss may occur during shipping and storage. It is strongly recommended to charge batteries for at least eight hours prior to using the UPS for the first time to ensure that the batteries' maximum charge capacity. To recharge the batteries, plug the UPS into an AC outlet.
2. When you use the included software, connect either the serial or the USB cable between the computer and the corresponding port on the UPS. Note: If the USB port is used, the serial port will be disabled. They cannot be used simultaneously. The computer with the PowerPanel® Business Edition S/W connects to the USB port or the Serial port on the UPS. It can control the operating schedule, battery test, outlet, etc. and get information on the UPS status. However, other computers with PowerPanel® Business Edition S/W can only get UPS status information via a LAN connection.
3. With the UPS off and unplugged, connect your equipment into the outlets. DO NOT plug a laser printer, copier, space heater, vacuum, paper shredder or other large electrical devices (see Specifications for maximum load capacity) into the UPS. The power demands of these devices will overload and possibly damage the unit.
4. To protect a fax, telephone, modem line or network cable, connect the telephone or network cable from the wall jack outlet to the jack marked "IN" of the UPS. Then, connect a telephone cable or network cable from the jack marked "OUT" on the UPS to the modem, computer, telephone, fax machine, or network device.
5. Plug the UPS into a 2 pole, 3 wire grounded receptacle (wall outlet). Make sure the wall branch outlet is protected by a fuse or circuit breaker and does not service equipment with large electrical demands (e.g. air conditioner, refrigerator, copier, etc.). Avoid using extension cords.
6. Press the power switch to turn the UPS on. The Power-On indicator light will illuminate. If an overload is detected, an audible alarm will sound and the UPS will emit one long beep. In order to reset it, turn the unit off and unplug some equipment from outlets. Make sure your equipment carries a load current within the unit's safe range (see Technical Specifications for maximum load capacity), and then turn the unit on.

## HARDWARE INSTALLATION GUIDE CONT.

7. Your UPS is equipped with an auto-charge feature. When the UPS is plugged into an AC outlet, the battery will be automatically charging, even when the unit is switched off.
  8. In order to maintain an optimal battery charge at all times, leave the UPS plugged into an AC outlet at all times.
  9. Before storing the UPS for an extended period of time, turn the unit OFF. Then cover it and store it with the batteries fully charged. Recharge the batteries every three months to ensure good battery capacity and long battery life. This may also prevent damage to the unit from unlikely battery leakage.
  10. The unit provides one Primary Serial Port (I), Secondary Serial Port (II), and one USB port, (paired with the Primary Serial Port), to allow connection and communication between the unit and any attached computers. The Primary Serial Port (I) as well as its paired USB port allow for bi-directional communication among the UPS and the primary connected computer running the PowerPanel® Business Edition S/W provided. The UPS can control the computer's shutdown in case of an emergency, and at the same time, the computer can monitor the UPS and alter its various programmable parameters. On the other hand, secondary Serial Port II only allows the UPS to initiate the connected computer's smart auto-shutdown in case of an emergency.
  11. EPO (Emergency Power Off) Port: Use the provided cable to connect to the special EPO contact switch. Follow the appropriate circuit diagram (right) to wire the cable to your EPO configuration. The EPO remote switch is a switch installed in an outside area, connected to the unit via an ordinary RJ-11 phone line. In case of an emergency, it can be used to immediately cut-off power from the UPS.
- OPTION 1: USER SUPPLIED NORMALLY CLOSED SWITCH**
- 
- OPTION 2: USER SUPPLIED NORMALLY OPEN SWITCH**
- 
- Primary Computer-  
Install PowerPanel®  
Business Edition      Primary Computer-  
Install PowerPanel®  
Business Edition      The equipment that  
can read information  
from dry connect

## BASIC OPERATION

### PRODUCT FEATURES

1. Power Switch: Master on/off switch for equipment connected to the UPS.
2. Power On Indicator: Indicates the power is on.
3. LCD Module Display: LCD shows all the UPS information with icons and messages.
4. LCD Display Toggle Button: The button can be used to toggle between different data displays on the LCD.
5. Battery Backup Protected Outlets: Provides eight battery powered, surge protected and AVR outlets for connected equipment and ensures temporary uninterrupted operation of connected equipment during a power failure.
- Critical /Non-critical: When the UPS is overloaded, the circuit breakers will be tripped to interrupt the power supply to the uncritical outlets while continuing to supply the critical outlets. As well, as the battery capacity depletes under the threshold value, the uncritical outlets will be shut down and provide energy for critical outlets. The threshold can be determined and set by users. Non-critical outlets can also be turned on/off manually through the software package provided.
6. Input Power Cord: Heavy-duty, extra long power cord.
7. Output Circuit Breaker: Resettable circuit breakers provide Output outlets protection from overload.
8. Input Circuit Breaker: Resettable circuit breakers provide Input outlets optimal overload protection.
9. USB port: USB communication port for management software.
10. Protected Communication Ports RJ11/RJ45: Ports protect standard single line modem, fax, telephone line or network cable.

## DEFINITIONS FOR ILLUMINATED LCD INDICATORS:

**INPUT voltage meter:** Measures the AC voltage that the UPS system is receiving from the utility wall outlet. The INPUT voltage readout can be used as a diagnostic tool to identify poor-quality input power. The AVR in this UPS continuously conditions the power to a stable 110/120V output to connected equipment. In the event of a complete power loss, severe brownout, or over voltage, the UPS relies on its internal battery back up to supply a consistent 110/120V output.

**OUTPUT voltage meter:** Measures, in real time, the AC voltage that the UPS system is providing to the computer, such as normal line mode, AVR mode and battery back up mode.

Note: The OUTPUT voltage readout displays the status of the battery back-up outlets.

**ESTIMATE RUN TIME:** Displays the run time estimate of the UPS with the current battery capacity and load.

**NORMAL icon:** Appears when the UPS is working under normal conditions.

**BATTERY icon:** During a severe brownout or blackout, this icon appears and an alarm sounds (two short beeps followed by a pause) to indicate the UPS is operating from its Internal batteries. During an extended brownout or blackout that drains the battery, a continuous alarm will sound (and the BATT. CAPACITY readout will show a single shaded segment, equaling 20% battery capacity remaining) indicating the UPS batteries are nearly out of power. If this occurs, it is recommended that you save your files and manually power down your equipment immediately.

**AVR (Automatic Voltage Regulation) icon:** Appears whenever your UPS is automatically correcting low AC input line voltage without using battery power. This is a normal, automatic operation of your UPS, and no action is required.

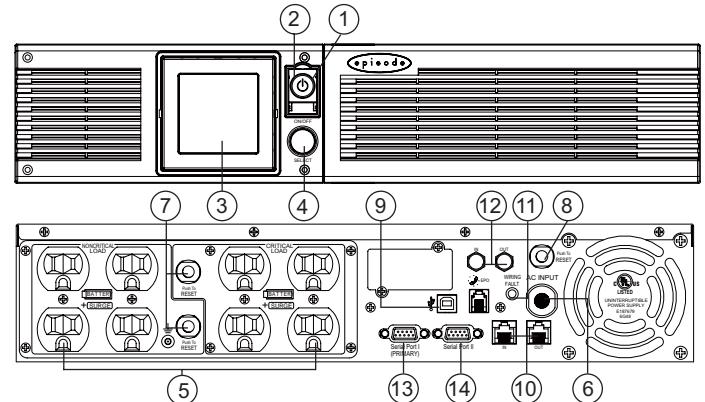
**SILENT MODE icon:** Appears whenever the UPS is in silent mode. The buzzer does not beep during silent mode until the battery reaches low capacity.

**OVER LOAD icon:** Appears and an alarm sounds to indicate the battery-supplied outlets are overloaded. To clear the overload, unplug some of your equipment from the battery-supplied outlets until the icon turns off and the alarm stops.

**FAULT icon:** Icon appears if there is a problem with your UPS.

**BATT. CAPACITY meter:** Displays the approximate charge level (in 20% increments) of the UPS's internal battery. During a blackout or severe brownout and the UPS switches to battery back up power, the BATT. CAPACITY icon appears and the charge level decreases.

**LOAD CAPACITY:** Displays the approximate output load level (in 20% increments) of the UPS's battery outlets.



11. Site Wire Fault Indicator: This LED will illuminate to warn the user that a wiring problem exists within the AC receptacle, such as a bad ground or reversed wiring. If illuminated, disconnect all equipment and contact an electrician to ensure outlet is properly wired.
12. Coax/Cable/DSS Surge Protection: The Coax/Cable/DSS surge protection ports will protect any cable Modem, CATV converter or DSS receiver.
13. Serial Port I: Serial port allows connection and communication between the UPS and the computer.
14. Serial Port II: Serial Port II relays information to equipment that can utilize a contact closure UPS.



## LCD STATUS AND SETUP FUNCTIONS

### 1. General Mode:

- a. Press the "Display" button to check the status of the UPS.
- b. Press and hold the Display toggle for 4 seconds:
  - If machine is in Battery Mode, it will enter Mute status.
  - If machine is in Line Mode, it proceeds Self Test.
- c. If the Display toggle remains untouched for over 30 seconds, the LCD backlight will turn off automatically.

### 2. Set-up Mode

Step 1: The machine enters Set-Up Mode after holding the Display toggle for 10 seconds. Icons 3,4,5,6,7,8 light to indicate Set-Up Mode.

Step 2: By pressing the Display toggle, users can switch between setup functions.

User configurable functions are as follows:

- a. Delay Time: Delay between switching from Battery Mode to Line Mode. There are 9 different settings. The default setting is 0 minutes.
- b. Battery Pack Numbers: Provides the estimated UPS runtime using various numbers of battery packs. The default setting is 0.
- c. Static Frequency Tolerance: There are 6 settings. The default setting is +/-6%. Functional description: The setting may be adjusted to the quality of the electricity in use.
- d. Slew rate (Dynamic Frequency Tolerance): There are 5 different settings, and the fault value is 4Hz/sec. Functional Description: "Slew Rate" indicates the tolerance of a device in accepting frequency variance. The lower "Slew Rate" results in less tolerance, but better protection for the connected loads.
- e. Battery Shutdown Voltage: This function adjusts the UPS shutdown point according to the battery voltage.

The settable items are sorted by unit as in the following table:

Step 3: Press and hold the toggle for 4 seconds. When the icons blink, the value of each item can be changed by slightly pressing the toggle.

Step 4: To save the value and return to general mode, press and hold the toggle for 4 seconds.

Note: If the machine is left idle for over 30 seconds during setup, the backlight will turn-off and return to general mode automatically.

Note: If user wants to return to general mode without saving changes, there are two methods:

1. Wait for the backlight to turn off OR 2. Press and hold the "Display" toggle for 10 seconds.

## TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	SOLUTION
Outlets do not provide power to equipment.	Circuit breaker has tripped due to an overload.	Turn the UPS off and unplug at least one piece of equipment. Wait 10 seconds, reset the circuit breaker by depressing the button, and then turn the UPS on.
	Batteries are discharged.	Recharge the unit for at least 4 hours.
	Unit has been damaged by a surge or spike.	Contact SnapAV™ about replacement batteries at 866.838.5052.
	Uncritical outlets have turned off automatically due to an overload.	Push the toggle button to make the uncritical outlets turn on.
The UPS does not perform expected runtime.	Battery not fully charged.	Recharge the battery by leaving the UPS plugged in.
	Battery is worn out.	Contact SnapAV™ about replacement batteries at 866.838.5052.
The UPS will not turn on.	The on/off switch is designed to prevent damage by rapidly turning it off and on.	Turn the UPS off. Wait 10 seconds and then turn the UPS on.
	The unit is not connected to an AC outlet.	The unit must be connected to a 110/120v 60Hz outlet.
	The battery is worn out.	Contact SnapAV™ about replacement batteries at 866.838.5052.
	Mechanical problem.	Contact SnapAV™ at 866.838.5052
PowerPanel® Personal Edition is inactive (all icons are gray).	The USB cable is not connected.	Connect the USB cable to the UPS unit and an open USB port on the back of the computer. The provided USB cable must be used.
	The unit is not providing battery power.	Shutdown your computer and turn the UPS off. Wait 10 seconds and turn the UPS back on. This should reset the unit.
	The cable is connected to the wrong port.	Try another port of the computer.
	The serial cable is not the cable that was provided with the unit.	Replace with provided USB cable.

## SPECIFICATIONS

	1000	2200
Product Dimensions	17.25 x 15.75 x 3.5 (LWXH)	
Weight	52 lb.	63 lb.
Rack Size	2U	
AC Input Plug Type	Nema 5-15P	Nema 5-20P
Cable Length	10 ft	
Operating Temperature	32°F to 95°F (0°C to 40°C)	
Automatic Voltage Regulation	Yes	
Amperage	15	20
AC Outlets & Plug Type	8 x Nema 5-15R	8 x Nema 5-20R
Output VAC	1000	2170
Output Watts	700	1600
UPS Topology	Line-Interactive	
Operating Humidity	0%-95% non condensing	
Storage Temperature	5°F to 113°F (-15°C to 45°C)	
Number of RJ11/RJ45 Connectors	1 pair (1-in, 1-out)	
RJ11/RJ45 Clamping Level	310 V for RJ11, 6.8 V for RJ45	
Coaxial No. of Pairs	1	
COAXIAL Gold Plated "F" Connectors	Yes	
Coax/Cable/DSS Surge Protection	Yes	
Coaxial Insertion Loss	< 1 dB (rated for DSS) (up to 2.0 GHz)	
Coaxial Breakdown Voltage	300V	
Coaxial Bidirectional?	Yes	
Input Voltage Range (VAC)	80-150	
Output Plug Style	Right Angle	
Resettable Circuit Breaker	Yes (2 resettable circuit breakers)	
Number of Total Outlets	8	
Number of Surge & Battery Backup Outlets	8	
Battery Voltage (VAC)	120 +/- 7% (pure sine wave)	
Line Frequency (Hz)	60 +/- 3	
Battery Frequency (Hz)	50/60 +/- 1%	
Battery Waveform	Sine wave	
Overload Protection	On Utility: Circuit Breaker On Battery: Internal Current Limiting	
Transient Response Time (ms)	< 4 millisecond	
Single Pulse Energy Dissipation (Joules)	1874	
Peak Impulse Current (Amps)	65000A	
Noise Filtration Range	100KHz ~ 100MHz	
Battery Runtime at Half Load (min)	32	16
Battery Runtime at Full Load (min)	11	6
Battery Typical Recharge Time (Hours)	8	
Battery Type	Sealed Lead Acid	
Battery Size	12V/7AH	12V/9AH
User Replaceable Battery	Yes	
Replacement Battery	RBP832S	RBP842S
Battery Qty	4	
PRODUCT COMPLIANCE (UL, FCC, RoHS, CE)	UL 1778 (UPS) cUL, 107.1 FCC, Class B, RoHS	
UL 498 LISTED (Attachment plugs and receptacles)	Yes	
UL FILE NUMBER and/or CSA FILE NUMBER	E187679	
Cable Type	USB	
Software	PowerPanel® Business Edition	